

NATURAL HISTORY MISCELLANEA

Published by
The Chicago Academy of Sciences
Lincoln Park - 2001 N. Clark St., Chicago 14, Illinois

No. 51

July 21, 1949

The Status of a Saaremaan *Oedogonium*

Lewis Hanford Tiffany *

In 1927 N. Malta collected specimens of an *Oedogonium* on the Island of Saaremaa, located in the Baltic at the mouth of the Gulf of Riga. Skuja (1930) examined Malta's collection and associated the species with *Oedogonium acmandrium* Elfving, describing and figuring the material as *Oe. acmandrium* Elfv. var. *stictospermum* n. var.

Oe. acmandrium, first described by Hirn (1895, 1900) from Finland, has since been recorded for Sweden, Illinois and Massachusetts (U. S. A.), and India. It is characterized by smooth spore-walls, a single sperm in the antheridium, and usually subglobose oogonia and oospores (Plate 1, fig. A). Britton (1944) collected material from Illinois that seems identical with the Saaremaan alga described by Skuja. It has scrobiculate spore-walls, two sperms in the antheridium, and depressed-globose oogonia and oospores (Plate 1, fig. B and C). These data appear to be sufficient to indicate that the variety *stictospermum* should have specific rank. It is therefore redescribed as follows:

Oedogonium stictospermum (Skuja) Tiffany comb. nov.

Oedogonium acmandrium Elfv. var. *stictospermum* Skuja 1930, p. 30, pl. 2, fig. 1-2.

Monoicum; oogoniis singulis vel rarius binis, depresso-globosis, operculo apertis, circumscissione mediana; oosporis depresso-globosis, oogonia fere complentibus, membrana triplici: episporio etiamque endosporio laevi, mesosporio scrobiculato, pallide fusco; antheridiis singulis vel 2-4 continuis, subepigynis vel subhypogynis; gametis masculis binis, divisione horizontali ortis; cellula terminali apice obtusa; cellula basali forma, ut vulgo, elongata; cellulis vegetativis 7-14 μ latis, 25-140 μ longis; oogoniis 28-40 μ , latis; 30-38 μ , longis; oosporis 27-37 μ , latis, 25-32 μ , longis; antheridiis 8-11 μ latis, 8-14 μ longis.

*Department of Botany, Northwestern University.

Monoecious; oogonia 1-2, depressed-globose, with median operculum; oospore depressed-globose, nearly filling the oogonium, median spore-wall scrobiculate, pale brown; antheridia 1-4, subepigynous or subhypogynis; sperms 2, division horizontal; terminal cell apically obtuse; basal cell elongate; vegetative cell 7-14 x 25-140 μ ; oogonium 28-40 x 30-38 μ ; oospore 27-37 x 25-32 μ ; antheridium 8-11 x 8-14 μ .

References

- Britton, M. E.
 1944 A catalog of Illinois Algae. Northwestern Univ. Studies in Biol. Sci. and Med., no. 2, . 1-177.
- Hirn, K. E.
 1895 Verzeichnis finnländische Oedogoniaceen. Acta Soc. Faun. Fl. Fenn., vol. 11, . 1-24.
 1900 Monographie and Iconographie der Oedogoniaceen. Acta Soc. Sci. Fenn., vol. 27, . 1-395.
- Skuja, H.
 1930 Susswasseralgen von den westestnischen Inseln Saaremaa and Hiiumaa. Acti Horti Bot. Univ. Latv., vol. 4, . 1-76.
- Tiffany, L. H.
 1930 The Oedogoniaceae, a monograph. 253 pages. Pub. by Author.
 1937 Oedogoniales. North American Flora, vol. 11, no. 1, . 1-85.

Plate 1

Fig. A, *Oedogonium acmandrium* Elfving.

Fig. B, *Oe. stictospermum* (Skuja) Tiffany, ornamentations omitted from spore-wall.

Fig. C, *Oe. stictospermum* (Skuja) Tiffany, modified from Skuja. X 540.

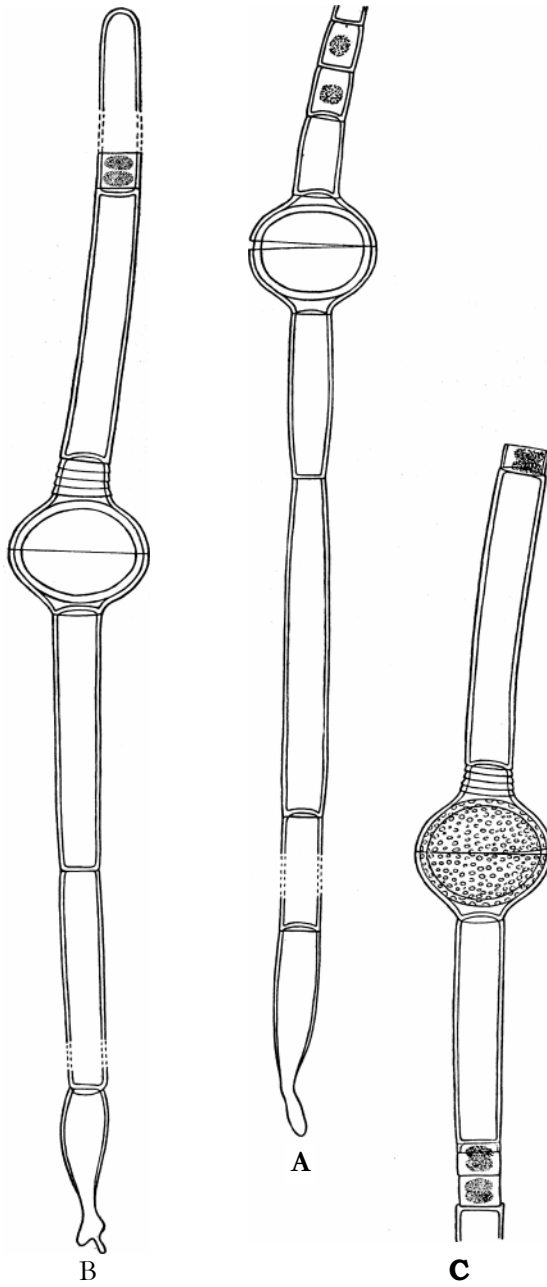


Plate 1

Natural History Miscellanea, a series of miscellaneous papers initiated in 1946 as an outlet for original articles, more or less technical in nature, one to four pages in length, in any field of natural history. Individual issues, published at irregular intervals, are numbered separately and represent only one field of specialization; e. g., botany, geology, entomology, herpetology, etc. The series is distributed to libraries and scientific organizations with which the Academy maintains exchanges. A title page and index will be supplied to these institutions when a sufficient number of pages to form a volume have been printed. Individual specialists with whom the museum or the various authors maintain exchanges receive those numbers dealing with their particular fields of interest. A reserve is set aside for future exchanges and a supply of each number is available for sale at a nominal price. Authors may obtain copies for their personal exchanges at the prevailing rates for similar reprints.

H. K. Gloyd, Director of the Museum.

Committee on Publications:

Alfred Emerson, Hanford Tiffany, and C. L. Turner.